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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,359

06/06/2006

Shirou Sawa

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6815

513 7590 10/09/2008

WENDEROTH, LIND & PONACK, L.L.P.

2033 K STREET N. W.

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WASHINGTON, DC 20006-1021

EXAMINER

BLAND, LAYLA D

ART UNIT

PAPER NUMBER

1623

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DELIVERY MODE

10/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,359	<b>Applicant(s)</b> SAWA, SHIROU	
	<b>Examiner</b> LAYLA BLAND	<b>Art Unit</b> 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/9/2008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is a response to Applicant's amendment and declaration of Shirou Sawa submitted August 1, 2008, wherein claims 1 and 4 are amended, claims 2 and 5 are canceled, and new claim 9 is added. Claims 1, 3, 4, and 6-9 are pending in this application and are examined on the merits herein.

The following new ground of rejection was necessitated by Applicant's amendment submitted August 1, 2008, wherein the scope of independent claim 1 was changed to require a third component which is monoethanolamine, N-methylglucamine, or nicotinamide and wherein new claim 9, requiring specific polymers and surfactants, was added.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. (US 4,910,225, March 20, 1990, PTO-1449 submitted May 5, 2006) in view of Fu et al. (US 5,414,011, May 9, 1995, PTO-1449 submitted May 5, 2006), Cagle et al. (US 6,440,964, August 27, 2002, of record) and Miyagi et al. (US 6,281,224, August 28, 2001, PTO-1449 submitted May 5, 2008).

Ogawa et al. teach ophthalmic compositions comprising bromfenac [see abstract and column 5, Test drug]. The solution is stabilized by the addition of a water-soluble polymer and by adjusting the pH [column 3, lines 12-15]. Buffer should be added to adjust the pH to about 6.0-9.0, preferably about 7.5-8.5 [column 3, lines 48-55]. A preferred water-soluble polymer is polyvinylpyrrolidone [column 3, lines 54-56]. The ophthalmic composition may also include other anti-inflammatory agents and an antimicrobial [column 4, lines 1-5].

Ogawa et al. teach the use of antimicrobials generally but do not teach aminoglycoside antibiotics specifically. Ogawa et al. also do not teach the inclusion of monoethanolamine, N-methylglucamine, or nicotinamide.

Fu et al. teach an ophthalmic formulations wherein preferred embodiments comprise ketorolac (0.25-0.5% wt/vol.) and tobramycin (0.15-0.3% wt/vol.), as well as buffers and nonionic surfactants [columns 9 and 10, Examples 3-6]. Other suitable NSAIDs include indomethacin, flurbiprofen sodium, and suprofen [column 6, lines 9-16]. The formulations are prepared by dissolving the solutes in water and adjusting the pH to about 6-8 [column 6, lines 63-67]. Suitable buffers include citrate [column 6, lines 48-50]. The ophthalmic formulations can be administered in the form of an eye drop [column 8, lines 24-35].

Cagle et al. teach ophthalmic formulations comprising an antibiotic and a non-steroidal anti-inflammatory agent. Cyclooxygenase type I and type II inhibitors such as diclofenac, flurbiprofen, ketorolac, suprofen, bromfenac, and indomethacin are preferred NSAIDs for use in the formulations. [column 7, lines 49-58]

Miyagi et al. teach ophthalmic solutions containing the NSAID pranoprofen (which is also a cyclooxygenase inhibitor) and an organic amine [see abstract]. Excellent stability and little irritation to the eyes can be prepared by the addition of organic amine [column 1, lines 59-63]. Preferred organic amines include alkanolamines such as monoethanolamine [column 2, lines 3-5]. Surfactants such as polysorbate 80 can also be added [column 3, lines 11-40].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare an aqueous composition comprising tobramycin, bromfenac, and an alkanolamine. Bromfenac and other cyclooxygenase inhibitors are well known in the art for ophthalmic formulations. The use of aminoglycoside antibiotics along with NSAID's is also known in the art. Ogawa et al. teach that polyvinylpyrrolidone can be used to help stabilize an ophthalmic solution, and Miyagi et al. teach that monoethanolamine can also be used to stabilize an ophthalmic solution and to reduce eye irritation. Thus, the prior art includes each element currently claimed, and each element in the combination would be expected to perform the same function as each did separately. Thus, the skilled artisan could have recognized that these elements could be combined and that the results would be predictable.

### ***Response to Arguments***

Applicant's arguments which are relevant to the new ground of rejection are addressed here.

Applicant argues that the claimed invention, including one of monoethanolamine, N-methylglucamine, or nicotinamide provides a stable and clear aqueous solution, and

provides the declaration of Shirou Sawa in support. Applicant argues that none of the cited references disclose or suggest that the claimed combination does not cause precipitation. Monoethanolamine is disclosed as a stabilizer and as a means to make an ophthalmic composition less irritable to the eye, which are two reasons for the skilled artisan to incorporate it in an ophthalmic composition. Miyagi's teaching of stability could be interpreted as physical stability and thus Miyagi does suggest that precipitation or other undesirable physical transformations are inhibited by monoethanolamine. Furthermore, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicant argues that the antibiotics taught by Cagle are not aminoglycoside antibiotics. Cagle was cited to show that cyclooxygenase type I and type II inhibitors such as diclofenac, flurbiprofen, ketorolac, suprofen, bromfenac, and indomethacin can be used interchangeably. Fu teaches a composition comprising ketorolac and an aminoglycoside antibiotic; thus the skilled artisan would expect bromfenac and an aminoglycoside antibiotic to be a successful combination.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAYLA BLAND whose telephone number is (571)272-9572. The examiner can normally be reached on Tuesday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anna Jiang can be reached on (571) 272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shaojia Anna Jiang, Ph.D./  
Supervisory Patent Examiner, Art Unit 1623

/Layla Bland/  
Examiner, Art Unit 1623